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ABSTRACT

A study was conducted at Broward Community College (BCC) to determine whether student performance on placement tests and enrollment in college preparatory courses have any bearing on graduation and persistence rates. Using data on first-time students entering BCC in fall 1985 and fall 1986, the study revealed: (1) of the 758 fall 1986 students who passed all placement tests, 61.3% were still enrolled after two years, and 14.5% had graduated; (2) 593 of the fall 1986 freshmen scored below college-level in one skill area; among these students, the 171 students who successfully completed the corresponding college preparatory course had higher graduation and persistence rates than the 422 students who did not take/pass the course; (3) 397 students scored below college-level in two skill areas; of these students, 47.6% of the 210 students who took/passed no college preparatory classes were still enrolled two years later; 64.6% of the 147 students who successfully completed one college prep class were still enrolled; and 80% of the 40 students who passed two college prep classes were still enrolled; (4) combined persistence and graduation rates among students who scored below college-level in three areas were highest for students who successfully completed three college prep classes (85.7%), followed by those who passed two prep classes (77.4%), those who passed one class (62.4%), and those who took/passed no college prep classes (35.6%); and (5) when persistence after three years was examined, graduation rates had increased and overall persistence had decreased. (JMC)

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COLLEGE PREPARATORY INSTRUCTION AND STUDENT PERSISTENCE AT BROWARD COMMUNITY COLLEGE

INSTITUTIONAL RESEARCH REPORT ABSTRACT RR89-14

LiAnne C. Gabe

April 11, 1989

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INSTITUTIONAL RESEARCH
Report Abstract

College Preparatory Instruction and Student Persistence at Broward Community College

RR89-14 **April 11, 1989**

A recent report by Institutional Research (RR89-09) examined the effects of current and proposed entry level examination cut-off scores on student passing rates. In that report it was noted that passing standards should be, to some degree, relevant to the prediction of student success. If they are not, then the present system of college preparatory courses is not likely to succeed, as well as it might, in performing the function for which it was created. In order to determine whether student performance on placement examinations, and enrollment in college preparatory courses, has any bearing on graduation and persistence rates, the present report examines these data for the Fall 1985 and Fall 1986 first-time-in-college cohorts.

Using data retrieved from the College's longitudinal database, entry-level examination scores were employed to determine the need for college preparatory classes. The records were examined for all degree-seeking students. If there were multiple examination scores on a student's record, only when all scores in a given skill area were below the passing standard was the student classified as needing college preparation in that area. The total number of preparatory classes needed was then calculated, and compared to the number of college preparatory classes actually taken. This created ten categories of students as follows:

1. Those who passed all exams taken and took no college preparatory classes
2. Those who needed one area and passed no preparatory classes
3. Those who needed one area and passed one preparatory class
4. Those needing two areas who passed no preparatory classes
5. Those needing two areas who passed one preparatory class
6. Those needing two areas who passed two preparatory classes
7. Those who needed three areas and passed no preparatory classes
8. Those who needed three areas and passed one preparatory class
9. Those who needed three areas and passed two preparatory classes
10. Those who needed three areas and passed three preparatory classes

Those enrolled in any semester of the 1987-1988 school year, or during the Fall 1988 semester, were classified as "Still Enrolled". Any student who failed to register for classes after initial enrollment was not included in the analysis. This may have eliminated students who were discouraged by college preparatory instruction requirements, and consequently did not persevere into even one term. The Fall 1985 cohort was used to determine third-year persistence rates, and the Fall 1986 cohort was examined to indicate persistence into the second year. It should be noted that in the of Fall 1985, students were placed into preparatory classes mainly on the basis of SAT and ACT scores, while the 1986 Fall cohort was tested mainly with the ASSET. Additionally, the requirements for enrollment in preparatory classes were not enforced as stringently in 1985 as they were in 1986. This has the effect of diminishing the comparability between cohorts of the placement process, but should not affect the influence of the preparatory coursework itself. One caveat should be stated at the outset, and that is the fact that enrollment in as many as three college preparatory classes can be considered a form of persistence in and of itself, and may contribute to a somewhat circular logic. Additionally, those students who do persist through three preparatory classes may be more strongly motivated than those who do not, and this motivation, or other factors, rather than the cumulative effects of college preparatory courses, may account for at least some portion of the difference in persistence among the groups.

When the two-year persistence rates are examined for the Fall 1986 cohort, a clear pattern emerges. Roughly three-quarters of those who did not require college preparatory classes were still enrolled or had graduated. Of those who had successfully completed all college preparatory coursework as required, from 80% to roughly 86% were still enrolled, depending on the number of classes needed (See Table 1). This finding is in sharp contrast to those who did not successfully complete needed college preparatory work. Persistence rates for this group ranged from approximately 64% for those who needed only one course, to just over 36% for the group who needed three courses. Figure 1 illustrates this pattern even more graphically. As can be seen, the groups who passed all college preparatory coursework that was required remained competitive with the students who required none. Conversely, those who did not complete any of the necessary preparatory courses showed a declining persistence rate as the number of skill areas in which they were lacking increased.

Further strengthening the view that enrollment in preparatory courses (when needed) increases the chances for student success, is the finding that with each additional course taken, the persistence rate increases. For example, of those needing three courses, 36% of those who passed none persisted, 62% of those who passed one were still enrolled, over 77% of those who passed two had persisted, and nearly 86% of those who passed all three preparatory classes were either graduated or still enrolled. As is apparent, the graduation rate for the groups requiring, and succeeding in, more college preparation is much lower than for those needing none. This fact can be attributed to the relatively short span of time after initial enrollment. Previous reports (RR88-22, RR88-25, RR88-27) have shown that the average length of time to graduation is three years at BCC, and the additional time required to complete college preparatory courses would be expected to postpone graduation accordingly.

When the Fall 1985 cohort's three-year persistence rates were examined, as expected, graduation rates had increased, and overall persistence had decreased (See Table 2). Despite these differences, however, the overall pattern had not changed. While approximately 62% of those who needed no college preparatory instruction had graduated or were still enrolled, roughly 67% of those who needed and took one preparatory course, and 62% of those who needed and took two preparatory courses had persisted. Of those who needed and passed three college preparatory classes, nearly 67% had graduated or were enrolled three years after initial enrollment. Among those who did not take the college preparatory classes required, the persistence rates were much lower. Of those who needed one course, but did not pass any, just over 48% had persisted. Of those who needed two preparatory classes and did not successfully complete any, roughly 35% had persisted, and of the group who needed college preparatory instruction in three areas but had not passed any, less than 28% had graduated or were still enrolled. Figure 2 shows similar persistence rates among those who needed no preparatory instruction and those who completed all preparatory instruction as required. Again, among

those who did not complete the required college preparatory courses, persistence declined as the numbers of courses needed increased.

While the results of this study appear to confirm the benefits of college preparatory instruction, there are some points which bear further mention. It should be noted that several individuals among both cohorts succeeded in graduating without the benefit of the prescribed college preparatory instruction. In fact, among those who needed two areas of preparatory instruction, a greater percentage of those without the required preparation had graduated after two years, than did those who passed both areas. After three years, roughly the same percentage of those who did not pass the two required courses had graduated as among those students who had successfully completed both courses. Clearly the system which is designed to place students into the requisite college preparatory courses is not foolproof. Additionally, those students who successfully complete two or three preparatory courses are very few. Less than 6% of the Fall 1985 cohort, and less than 5% of Fall 1986 cohort, completed three preparatory classes successfully. Of the Fall 1985 cohort, less than 11% who needed two areas of preparatory instruction had completed the two courses successfully, although this percentage increased to over 19% for the Fall 1986 cohort.

Based on the findings of this study, it appears that the chances of attrition are much higher for those students deficient in more than one skill area. If, however, these students persevere through satisfactory completion of the preparatory level coursework, their persistence rates are greatly enhanced. In order to ascertain a true cause-and-effect relationship between college preparatory instruction and later student success, only a controlled treatment effect experiment would suffice. Additionally, the data in the current study do not permit the identification of the factors which contribute to successful completion of college preparatory courses. Further examination of student academic histories may provide evidence which would enable one to determine whether or not student enrollment, or level of success, in college preparatory classes is a result of differences in beginning skill levels, academic preparation, opportunity, or intrinsic motivation, and whether these distinctions lead to variation in student outcomes.

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Table 1

Two-Year Persistence Rates*
First-Time-in-College Fall 1986
Degree Seeking Students

Below Placement Score in:		Successfully Completed College Preparatory in:			
		No Area	One Area	Two Areas	Three Areas
	N=	758			
No Area N=758	Graduated	110 14.5%			
	Still Enrolled	465 61.3%			
	Total	575 75.9%			
	N=	422	171		
One Area N=593	Graduated	26 6.2%	16 9.4%		
	Still Enrolled	243 57.6%	121 70.8%		
	Total	269 63.7%	137 80.1%		
	N=	210	147	40	
Two Areas N=397	Graduated	5 2.4%	6 4.1%	0 0.0%	
	Still Enrolled	100 47.6%	95 64.6%	32 80.0%	
	Total	105 50.0%	101 68.7%	32 80.0%	
	N=	163	93	62	14
Three Areas N=332	Graduated	1 0.6%	0 0.0%	1 1.6%	2 14.3%
	Still Enrolled	58 35.6%	58 62.4%	47 75.8%	10 71.4%
	Total	59 36.2%	58 62.4%	48 77.4%	12 85.7%

*Students were counted as "Still Enrolled" if enrolled in any 87-88 semester, or Fall 88-89

Table 2

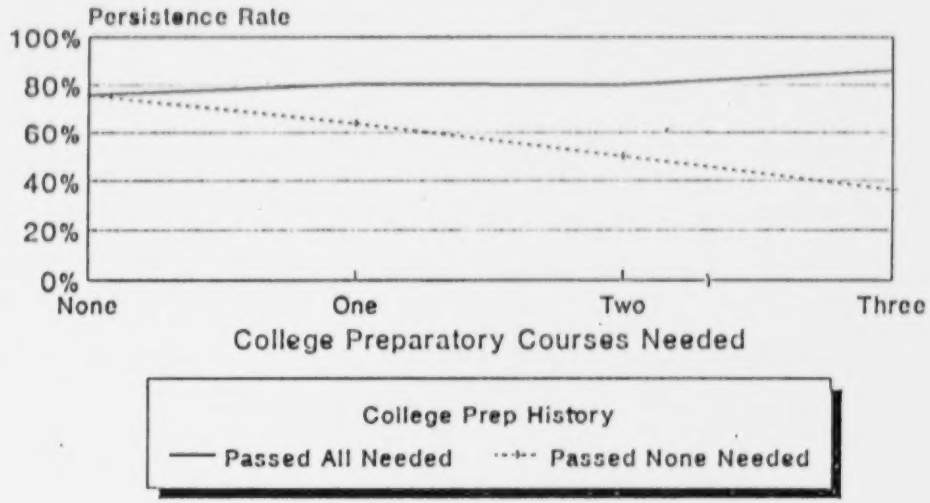
Three Year Persistence Rates*
First-Time-in-College Fall 1985
Degree Seeking Students

Below Placement Score in:		Successfully Completed College Preparatory in:			
		No Area	One Area	Two Areas	Three Areas
No Area N=738	N=	738			
	Graduated	184 24.9%			
	Still Enrolled	275 37.3%			
	Total	459 62.2%			
One Area N=436	N=	320	116		
	Graduated	40 12.5%	30 25.9%		
	Still Enrolled	115 35.9%	48 41.4%		
	Total	155 48.4%	78 67.2%		
Two Areas N=326	N=	178	114	34	
	Graduated	15 8.4%	16 14.0%	4 11.8%	
	Still Enrolled	48 27.0%	54 47.4%	17 50.0%	
	Total	63 35.4%	70 61.4%	21 61.8%	
Three Areas N=539	N=	260	152	97	30
	Graduated	5 1.9%	6 3.9%	9 9.3%	3 10.0%
	Still Enrolled	67 25.8%	60 39.5%	51 52.6%	17 56.7%
	Total	72 27.7%	66 43.4%	60 61.9%	20 66.7%

*Students were counted as "Still Enrolled" if enrolled in any 87-88 semester, or Fall 88-89

Figure 1

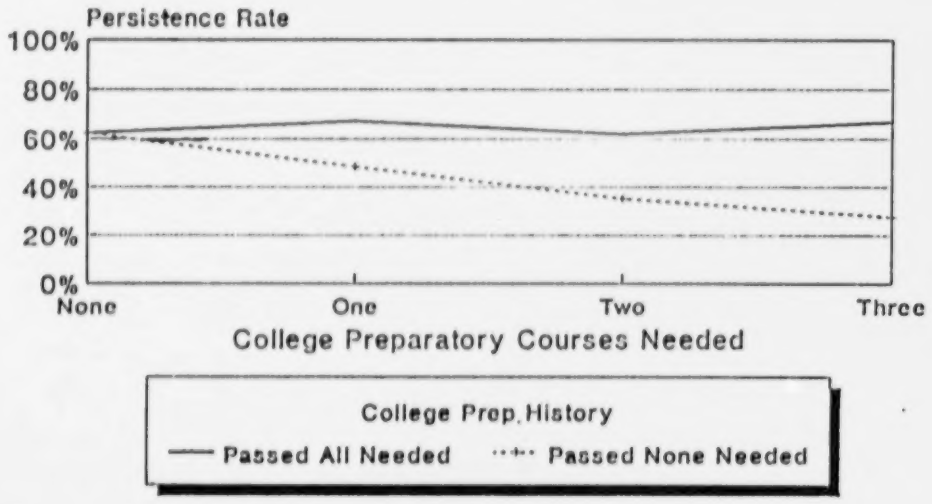
BCC Two-Year Persistence Rates*
Fall 1986 Cohort



*Graduated or Still Enrolled 8781, 8782, 8783, or 8891

Figure 2

BCC Three-Year Persistence Rates*
Fall 1985 Cohort



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